SONY

Operating Instructions Mode d'emploi

Wireless LAN PC Card (IEEE 802.11g: 2.4 GHz/54 Mbps) PCWA-C300S

01/

Carrier **Gate**

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Owner's Record

The model and serial numbers are located on the back of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. PCWA-C300S Serial No._____

CAUTION

Any changes or modifications not expressly approved in this manual could void your warranty.

FCC ID: AK8PCWAC300S

Exposure to Radio Frequency Radiation.

The radiated output power of the Wireless LAN PC Card is far below the FCC radio frequency exposure limits.

Nevertheless, the Wireless LAN PC Card shall be used in such a manner that the potential for human contact during normal operation is minimized.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates. uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Declaration of Conformity

Trade Name: Sony

Model No: PCWA-C300S

Responsible Party: Sony Electronics Inc.

Address: 680 Kinderkamack Road,

Oradell, NJ 07649 USA

Telephone: 201-930-6972

This phone number is for FCC-related matters only.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This equipment may not cause harmful interference, and

(2) this equipment must accept any interference received, including interference that may cause undesired operation.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Safety Information WARNING

- Opening the product, for whatever reason, could lead to damages that are not covered by the warranty.
- Do not use this product on hospital premises. Doing so may cause medical devices to malfunction.
- If using the product near a pacemaker, make sure it is at least 9 inches (22 cm) away from the pacemaker.
- Do not use this product in an aircraft, as doing so could cause the aircraft's equipment to malfunction. Make sure you remove the equipment from the PC card slot before carrying your computer onto an aircraft.
- Do not apply unnecessary physical strain on the product when it is inserted in your computer as this could damage the product and/or your computer.
- This product is made for use in the USA and Canada only.

FCC RF Exposure

Install and connect this product by following descriptions in its Operating Instructions before using it.

This equipment generates and radiates radio frequency energy.

SAR (Specific Absorption Rate) for this device was measured in accordance with FCC OET Bulletin 65. Supplement C and guidelines established in IEEE C95.1-1991.

In order to comply with FCC RF exposure limits please maintain at least 4 mm (0.16 in.) spacing between the user and the antenna of this device while it is in use.

This product can only be used with desktop computers and laptop (notebook) computers with side mounted PCMCIA slots.

This device cannot be used with other types of host devices, such as PDAs.

Users are not permitted to make changes or modify the system in any way.

For customers in Canada

- This class B digital apparatus complies with Canadian ICES-003.
- Operation is subject to the following two conditions; (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.
- The term "IC" before the equipment certification number only signifies that Industry Canada technical specifications were met.

Pour les utilisateurs au Canada

- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
- L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes : (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.
- Pour empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

• Le terme "IC" avant le muméro d'homologation ne signifie seulement que les normes d'Industrie du Canada ont été respectées.

About the supplied software

THE SUPPLIED SOFTWARE IS SUPPLIED PURSUANT TO THE APPLICABLE END-USER LICENSE AGREEMENT.

- Copyright laws prohibit reproducing the software or the software manual in whole or in part, or renting the software without the permission of the copyright holder.
- In no event will SONY be liable for any financial damage or loss of profits, including claims made by third parties, arising out of the use of the software supplied with this product.
- In the event a problem occurs with this software as a result of defective manufacturing, SONY will replace it at SONY's option or issue a refund; however, SONY bears no other responsibility.
- The software provided with this product cannot be used with equipment other than that which is designated for use with.
- Please note that, due to continued efforts to improve quality, the software specifications may be changed without notice.

Program © 2001, 2002, 2003 Sony Corporation, © 2000-2003 Atheros Communications, Inc., All Rights Reserved

Documentation © 2003 Sony Corporation

Sony, VAIO, MIO, Carrier Gate, and the

Eco Info logo are trademarks of Sony Corporation.

Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States of America and/or other countries.

MMX and Pentium are registered trademarks of Intel Corporation.

All other trademarks are trademarks of their respective owners.



Table of contents

Overview	5
Capabilities	5
System requirements	8
Documentation and Help file	. 10

Getting started

Unpacking 12
Supplied software 12
Installing the supplied software 13
Making Access Point Connection Settings
Windows Me or Windows 2000
operating system 20
Windows XP operating system 24
Removing the Wireless LAN PC Card and Precautions When Inserting it
To remove the Wireless LAN PC Card28
If your computer has two PC Card slots

Wireless LAN connection

Checking the communication status	29
Checking the wireless signal	
strength	29
Checking network information	29
Using the Wireless Panel	30
Opening the Wireless Panel	30

Additional information

Manually installing, verifying, and
removing the supplied software 31
Installing the Wireless LAN PC Card driver manually
Installing the Wireless Panel manually
Connecting to the Access Point with Wireless Panel (Windows Me/ 2000 operating system)
Verifying Wireless LAN PC Card driver installation
Uninstalling the Wireless LAN PC Card driver 50
Uninstalling the Wireless Panel 53
Precautions56
Specifications 57
Getting help 57
Glossary 58
Troubleshooting

• In this manual, Microsoft® Windows® Millennium Edition is referred to as Windows Me.

- In this manual, Microsoft® Windows® 2000 Professional is referred to as Windows 2000.
- In this manual, Microsoft[®] Windows[®] XP Professional and Microsoft[®] Windows[®] XP Home Edition are referred to as Windows XP.

Notes

- The user interface of the Sony supplied software may differ slightly from that shown in this manual.
- This manual is written based on the assumption that you are familiar with basic operations of the Windows operating system. For computer operations, refer to manuals that come with your computer.

Overview

Capabilities

The Wireless LAN PC Card (IEEE 802.11g: 2.4 GHz/54 Mbps) PCWA-C300S is a PC Card type wireless network card. With this card, you can build a wireless LAN, allowing multiple computers to communicate and exchange data without needing any physical connection. The supplied Wireless Panel software lets you easily configure the card for multiple networks. For example, you can store different settings required for networking at the office and at home, or quickly switch between Access Point (Infrastructure) Network connection mode and Peer to Peer (Ad-Hoc) Network connection mode. This greatly facilitates use of the card in various environments and for a range of applications.

∛Ç Hints

- · The network mode can easily be switched using the supplied Wireless Panel software.
- To use the card in Access Point Network connection mode, an IEEE 802.11g or IEEE 802.11b compliant Wireless LAN Access Point* (available separately) is necessary.

With the Windows Me or Windows 2000 operating system:

Access Point (Infrastructure) Network connection mode

Registering Network		? X
Wireless LAN Proxy		
Network Name (SSID)		
Wireless LAN 01		•
Connection Mode		
Access Point (Infrastri	· · ·	
Peer to Peer (Ad-Hoc		
WEP		
Key	In ASCII character, 6 characters(10	4 bits encryption)
111112		
Confirm key		
13333X		
Easy Setting	Connect Save(G)	Cancel

Peer to Peer (Ad-Hoc) Network connection mode

Registerin Network
Wireless LAN Proxy
Network Name (SSID)
Wireless LAN 01
Connection Hade Concess Bord Enfrantucture) Network C Detro Deter (AdHoc) Upannel Auto
Image: WEP Key In ASCII character, 6 characters(104 bits encryption)
Key In ASUI character, 6 characters (104 bits encryption)
Cgnfirm køy
[[EarySetting]] Connect [Save(g) [Cancel

* If using the separately available Wireless LAN Access Point PCWA-A320, also refer to the documentation supplied with the unit.

With the Windows XP operating system:

Available Wireless Networks

Connect to Wireless I	letwork ?×
it from the list, and then cl	are available. To access a network, select ck Connect.
Available <u>n</u> etworks:	
1 0a3478	~
3 933181	
463307	
•	~
This network requires the this network, type the key	use of a network key (WEP). To access , and then click Connect.
Network <u>k</u> ey:	
If you are having difficulty	connecting to a network, click Advanced.
<u>A</u> dvanced	<u>C</u> onnect Cancel

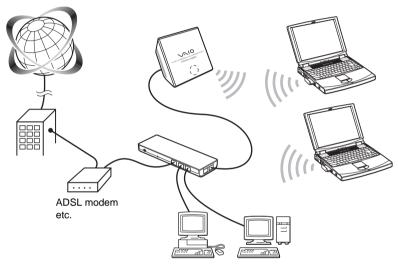
Windows XP Service Pack 1:

Available Wireless Networks

Wireless Network Connection 3
The following wireless network(s) are available. To access a wireless network, select it from the list, and then click Connect.
Available wireless networks:
🗼 0a3478
¥ 933181
🗼 4b3307 🛛 💌
This wireless network requires the use of a network key (WEP). To access this network, type the key, then click Connect.
Network key:
Confirm network key:
Enable IEEE 802.1x authentication for this network
If you are having difficulty connecting to a network, click Advanced.
Advanced Connect Cancel

Accessing the Internet from various points within your home (Access Point Network connection mode)

With a separately available Access Point you can easily build a wireless network. By connecting a DSL modem, cable modem, or ISDN router to the Access Point, you can access the Internet from the living room, bedroom, or any other convenient location in the house. Equipping multiple computers with a Wireless LAN PC Card also allows you to exchange files between the computers via the Access Point.



ີ່ **Ç** Hint

The illustration above gives an example of a system configuration using the Access Point Network connection mode. Two computers equipped with Wireless LAN PC Cards establish communications with the Wireless Broadband Router PCWA-AR300. The Wireless Broadband Router is connected to the ADSL modem, therefore it is possible to access the Internet through this wireless connection.

Direct communication between computers (Peer to Peer Network connection mode)

The Peer to Peer Network connection mode enables computers equipped with Wireless LAN PC Cards to communicate directly. This allows file sharing in locations where the Wireless LAN Access Point is not present.





System requirements

To use the supplied software, the following system requirements must be met:

□ Windows[®]-compatible PC:

- 128 MB RAM or more
- Card Bus compliant PC Card slot
- CD-ROM drive (for software installation)

□ Operating system:

- Microsoft® Windows® Millennium Edition
- Microsoft® Windows® 2000 Professional
- Microsoft® Windows® XP Home Edition
- Microsoft® Windows® XP Professional

Display:

High color (16-bit color) or higher, 800×480 pixels or higher

Notes

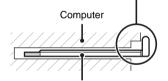
- Correct operation is not assured for all computers, even if satisfying the above system requirements.
- Correct operation in an OS upgrade environment is not assured, except for factory provided Windows XP operating system upgrade packages for Sony VAIO[®] series computers.
- For Internet access via the wireless LAN, an IEEE 802.11g or IEEE 802.11b compliant Wireless LAN Access Point (available separately) is necessary.
- An Internet Service Provider (ISP) is required for Internet access.

Precaution when using the PCWA-C300S

Because of the particular shape of the PCWA-C300S, it may not be possible to insert it into all computers.

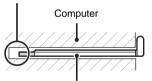
- The PCWA-C300S has an antenna protruding up 0.4 in. (9 mm). If obstructions 0.6 in. (15 mm) in length or more come in contact with it when you insert the PCWA-C300S into the PC card slot, you cannot fully insert the wireless LAN PC card into the slot.
- If the PC card slot of your computer is more than 3.3 in. (85 mm) in length, you cannot fully insert the PCWA-C300S into the slot.

The antenna is obstructed. The PCWA-C300S cannot be inserted.



Wireless LAN PC Card PCWA-C300S

The PC card slot is longer than 3.3 in. (85 mm). The PCWA-C300S cannot be inserted.



Wireless LAN PC Card PCWA-C300S

For details, visit http://www.sony.com/wirelesslansupport

Documentation and Help file

This product comes with the following documentation and help files.

Operating Instructions (this document)

Explains how to install the Wireless LAN PC Card and how to configure all settings of the card.

□Quick Start Guide

This document explains how to install software required to use the Wireless LAN PC Card (IEEE 802.11g: 2.4 GHz/54 Mbps) PCWA-C300S. The document also contains answers to frequently asked questions and common problems.

□Wireless Panel Online Help

This is the Online Help of the supplied Wireless Panel software. Refer to it for instructions on how to use the software. Access the Wireless Panel Online Help as follows.

Access from the Easy Installation Wizard

1 On the main menu of the Easy Installation Wizard, click "Documents".



2 On the screen that opens, click "Wireless Panel Online Help".



■ Access from Wireless Panel

- **1** Install the Wireless Panel software, following the instructions in this manual.
- **2** Start the Wireless Panel.
- **3** Right-click the Wireless Panel icon on your Windows operating system taskbar and click Help on the shortcut menu.



You can also access Help by clicking 🕐 on the Wireless Panel title bar.

Unpacking

Your Wireless LAN PC Card comes with the following items:

• Wireless LAN PC Card



- CD-ROM (Setup disc)
- Quick Start Guide
- Operating Instructions
- · Warranty card

Supplied software

The supplied CD-ROM contains the following software.

□ Wireless LAN PC Card driver

This device driver is necessary to the operation of the Wireless LAN PC Card.

❑Wireless Panel

Wireless Panel is a utility software that lets you configure the computer for the wireless LAN and monitor the communication status. The software is also used to switch between networks.

Normally, the Wireless Panel appears as an icon on your Windows operating system taskbar, which shows the communication status.

When using the card for the first time, see page 13 for information on how to install the Wireless LAN PC Card driver and the Wireless Panel.

Installing the supplied software

This section explains how to use the supplied CD-ROM to install the Wireless LAN PC Card device driver and Wireless Panel. You must insert the Wireless LAN PC Card into your computer before installing the device driver and Wireless Panel.

The installation procedures are performed with an easy-to-use wizard. Before you start, verify the following.

- The wizard located on the CD-ROM supplied with the Wireless LAN PC Card. Make sure that your CD-ROM drive is ready for use.
- When using the Wireless LAN PC Card in Access Point Network Connection mode, you must install the Access Point and make the necessary settings before proceeding. For details about these procedures, refer to your Access Point user's guide.

Notes

- To install the supplied software on a computer running the Windows 2000 operating system, log on with a user account listed in "Administrators". To install the supplied software on a computer running the Windows XP operating system, log on with a user account with administrator access privileges. You cannot install the software or modify settings when logged on with any other account.
- To change any of the Wireless Panel settings on a computer running the Windows 2000 operating system, log on with a user account listed in "Administrators". You cannot modify settings when logged on with any other account.
- · Exit all other Windows operating system programs.

When using the Windows XP "Internet Connection Firewall" function

Enabling the Windows XP "Internet Connection Firewall" function may prevent you from being able to access your computer through wireless communication. (This function is inactive under the Windows XP operating system default settings.) Because of this function, you may not be able to connect to your network when you change your Access Point settings. If this happens, deactivate the "Internet Connection Firewall" function, connect to the network, and then reactivate the function. For details, refer to Windows XP Help.

Note

Network security is an important issue. You are urged to consider carefully how best to protect your computer.

When using a personal firewall function provided by virus scanning or network security software

Virus scanning and network security software sometimes includes a function called a "personal firewall" that is designed to prevent illegal access by outside entities. Depending on the software, the security level of this function may be initially set to a high level. If this high security level setting is left in effect, it may be impossible for an outside entity to access your computer. This can cause problems such as not being able to connect to the network when changing the Access Point's settings. In this event, lower the security level in order to permit the network connection. For details, refer to the manuals provided with your software.

Notes

- Pay special attention to security issues.
- For questions regarding firewall functions, please contact your firewall software manufacturer.

- 1 When using the Wireless LAN PC Card in Access Point Network Connection mode, turn on the Access Point.
- **2** Insert the supplied CD-ROM into the CD-ROM drive of your computer.

The Easy Installation Wizard starts automatically.



ີ່ 🖞 Hint

If the Easy Installation Wizard does not appear when you insert the supplied CD-ROM into your CD-ROM drive, double-click "Setup.exe" () on the CD-ROM. Depending on the settings of your computer, the file name may be "Setup".

3 When the following message appears, click "OK".



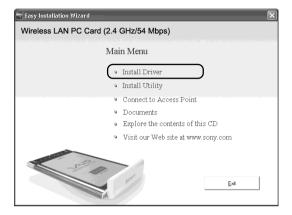
4 Click the button that corresponds to your type of CD-ROM drive.



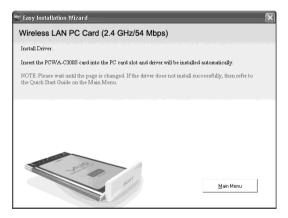
If you are using an external CD-ROM drive, follow the instructions on the screen and copy the contents of the CD-ROM to your hard disk. When the copy is complete, click "Main Menu".

The Main Menu of the Easy Installation Wizard appears.

5 Click "Install Driver".



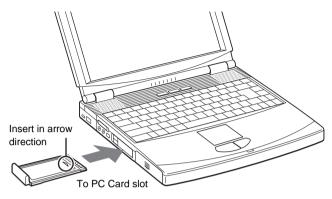
The following screen appears.



Insert the Wireless LAN PC Card and follow the instructions on the screen to install the device driver.

6 Insert the Wireless LAN PC Card in the PC card slot.

You do not need to turn off your computer when you insert the Wireless LAN PC Card.



Notes

- If your computer has two PC Card slots, insert the Wireless LAN PC Card into the top slot. If inserted into the bottom slot, the antenna of the Wireless LAN PC Card will block the top slot. See section "If your computer has two PC Card slots" on page 28.
- Depending on the depth and configuration of PC card slots on your computer, you may not be able to insert the Wireless LAN PC Card.

Push the Wireless LAN PC Card into the slot until it is firmly seated. If the card does not fit easily, do not force it in. Take the card out and try reinserting it.

When you insert the Wireless LAN PC Card, the device driver installed automatically. When installation is complete, proceed to step 7.

7 When installation is complete, the following screen appears. Click "Continue".

🖶 Easy Installation Wizard 🛛 🗙
Wireless LAN PC Card (2.4 GHz/54 Mbps)
Finish installing driver for the PCWA-C300S.
Click on "Continue" to go to the Install Utility page.
Continue
<u>Main Menu</u>

8 Click "Install Software Utility".

Easy Installation Wizard
Wireless LAN PC Card (2.4 GHz/54 Mbps)
Install Utility
Click on the "Install Software Utility" button to install the Wireless Panel.
NOTE: Wait for the Wireless Panel Setup to launch and follow the instructions to install. If the Wireless Panel does not install successfully, then see the Quick Installation Guide on the Main Menu.
Instal Software Utity
5 ^{our} <u>M</u> ain Menu

The utility installation starts.

9 Follow the instructions on the screen to complete the installation.

Easy Installation Wizard	×
Wireless LAN PC Card (2.4 GHz/54 Mbps)	
Finish installing software utility.	
Easy Installation Wizard can help you connect to an available "Connect to Access Point" button to proceed.	e access point. Click on the
n na	
-39 00	Connect to Access Point
and .	<u>M</u> ain Menu

This completes the installation of the software.

Once Wireless Panel is installed, appears on your Windows operating system taskbar.

What to do next

Make Access Point connection settings.

When using the Windows Me or Windows 2000 operating system, proceed to page 20.

When using the Windows XP operating system, proceed to page 24.

ີ່ 🥰 Hint

When using the Windows XP operating system, click "Main Menu" as necessary to return to the first screen of the wizard, or click \times to close the Easy Installation Wizard.

Making Access Point Connection Settings

After installing the necessary software, you must make the necessary settings to establish a connection with the Access Point.

If you want to establish a connection in Peer to Peer Network connection mode, refer to the Wireless Panel Help for details about the necessary settings.

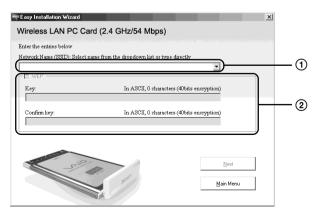
Windows Me or Windows 2000 operating system



1 Click "Connect to Access Point".

The following screen appears.

2 Make the appropriate settings.



(1)Network Name (SSID)

This is a unique ID used to identify wireless networks. The setting can be made individually for Access Point Network connection mode and Peer to Peer Network connection mode. When connecting to an existing network, consult your network administrator regarding the proper settings. When changing an existing Network Name, you can use up to 32 alphanumeric characters (including symbols).

ີ່ **Ç** Hints

- Opening the "Network Name" drop-down list will show the Network Names of any Access Points within range. You can then select a Network Name from the list.
- When using the Wireless LAN Access Point PCWA-A320, the default Network Name (SSID) of the Access Point is shown on the ID label of the Access Point. For details on the position of the label and other information, refer to the manuals provided with the Access Point.

2WEP

If Data Encryption (WEP) is enabled for the Access Point to which you connect, select this item. When this item is selected, you also need to enter the encryption key (WEP key) in the "Key" and "Confirm key" fields.

The data encryption function serves to prevent unauthorized access to the network. For security reasons, it is strongly recommended that you enable this feature. The setting can be configured individually for Access Point Network connection mode and Peer to Peer Network connection mode. When connecting to an existing network, consult your network administrator regarding the proper settings. For information on how to control this setting at the Access Point, refer to the manuals of the Access Point.

Key

If data encryption (WEP) is enabled for the Access Point, enter the encryption key (WEP key) here. Because this key functions as a password that enables communication with the network, the key entered here must be exactly the same as that set for the Access Point. Only computers for which the key has been configured correctly can join the network. The number of characters depends on the "ASCII/Hex" and "Length" settings (see table below).

	ASCII	Hexadecimal
Permissible characters	Alphanumeric characters	0 to 9, A to F, a to f
Maximum number of characters	5 or 13 characters	10 or 26 characters

Confirm key

Re-enter the encryption key that you entered in the "Key" box.

ີ່ 🙀 Hint

This product supports a function called "roaming" which allows the creation of a wireless network with multiple Access Points for wider coverage. When using this function, configure all Access Points to the same Network Name (SSID) and Data Encryption (WEP) settings.

3 When you are done, click "Next".

The following screen appears.

4 Make sure that the settings are correct, and then click "Connect".

Settings		
Network Name (SSID)	office	
WEP	ON	and the statement of the
Length	40bits	
Key (ASCII)	******	
		Connect

Wait until the Wireless LAN PC Card connects to the Access Point.



When the Wireless LAN PC Card establishes the connection with the Access Point, the following screen appears.



This completes the Access Point connection settings procedure.

ີ່ 🖞 Hint

You can change the connection settings and network connection mode from Wireless Panel. For details about how to use Wireless Panel, refer to the Wireless Panel Help.

Windows XP operating system

After installing the necessary software, you must make the necessary settings to establish a connection with the Access Point.

If you want to establish a connection in Peer to Peer Network connection mode, refer to the Wireless Panel Help for details about the necessary settings.

Note

Before configuring the Wireless LAN PC Card

Perform the following steps to confirm that the "Use Windows to configure my wireless network settings" check box is selected. This option is selected by default.

1 Click "Start", "Control Panel", and double-click "Network Connections".



If "Network Connections" is not displayed, click "Switch to Classic View".

- 2 Right-click "Wireless Network Connection *" ("*" is a number that differs according to the computer settings), and click "Properties" on the shortcut menu.
- 3 Click the "Wireless Network" tab.
- 4 Confirm that the "Use Windows to configure my wireless network settings" check box is selected. If not, select it.
- 1 Click "Start", point to "Connect To", and click "Show all connections".

The "Network Connections" window appears.

2 Right-click "Wireless Network Connection *" ("*" is a number that differs according to the computer settings), and click "View Available Wireless Networks" on the shortcut menu.

The "Connect to Wireless Network" dialog box appears.

ີ່ **Ç** Hints

• If the computer is not connected to a wireless network, an "x" is shown for the "Wireless Network Connection *" icon in the "Network Connections" window.

Connect to Wireless Network		
The following network(s) are available. To access a network, select it from the list, and then click Connect.		
Available <u>n</u> etworks:		
i 0a3478 i 933181 i 4b3307		
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.		
Network <u>k</u> ey:		
If you are having difficulty connecting to a network, click Advanced.		
Advanced Connect Cancel		

- If you have installed Windows XP Service Pack 1, see page 26.
- **3** From the "Available Wireless Networks" list in the "Connect to Wireless Network" dialog box, select the Access Point to which you want to connect.

ີ່ 🛱 Hint

The "Available Wireless Networks" list shows the names of Access Points within communication range of the computer. When using the Wireless LAN Access Point PCWA-A320, the default Network Name (SSID) of the Access Point is shown on the ID label of the card. For details on the position of the label and other information, refer to the manuals of the Access Point. Because the Network Name of an Access Point may have been changed, consult your network administrator if you are not sure.

4 If Data Encryption (WEP) is enabled for the Access Point, enter the encryption key (WEP key) in the "Network key" field.

The key entered here must be exactly the same as that set for the Access Point. Permissible characters and their maximum number are detailed below.

	ASCII	Hexadecimal
Permissible characters	Alphanumeric characters	0 to 9, A to F, a to f
Maximum number of characters	5 or 13 characters	10 or 26 characters

ີ່ **ຊີ່** Hints

- ASCII and hexadecimal characters are automatically identified.
- The data encryption (WEP) function serves to prevent unauthorized access to the network. When the function is enabled, only computers configured with the correct encryption key (WEP key) can join the network. For security reasons, it is strongly recommended that you enable this feature. The setting can be made individually for Access Point Network connection mode and Peer to Peer Network connection mode. When connecting to an existing network, consult your network administrator regarding the proper settings. For information on how to control this setting at the Access Point, refer to the manuals of the Access Point.

□ When using Service Pack 1

If you installed Windows XP Service Pack 1, steps 3 and 4 must be performed as follows.

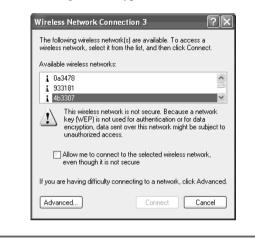
- **3** From the "Available Wireless Networks" list in the "Connect to Wireless Network" dialog box, select the Access Point to which you want to connect.
- **4** Depending on the Data Encryption (WEP) settings of the Access Point, proceed as follows.
- Data Encryption (WEP) at selected Access Point is enabled

Enter the encryption key (WEP key) in the "Network key" field. (The input is shown only as asterisks.) For verification, the same string must be entered once more in the "Confirm network key" field.

Wireless Network Connection 3
The following wireless network(s) are available. To access a wireless network, select it from the list, and then click Connect.
Available wireless networks:
🗼 0a3478
1 933181
🛔 4Ь3307 😒
This wireless network requires the use of a network key (WEP). To access this network, type the key, then click Connect.
Network key:
Confirm network key:
Enable IEEE 802.1x authentication for this network
If you are having difficulty connecting to a network, click Advanced.
Advanced Connect Cancel

 Data Encryption (WEP) at selected Access Point is disabled

Select the "Allow me to connect to the selected wireless network, even though it is not secure" check box. (For security reasons, enabling data encryption is recommended.)



5 Click "Connect".

Connection to the Access Point is established.

If the Access Point has already been configured, the setup procedure is now complete.

If you want to change the Access Point settings, refer to the manuals of the Access Point for information on how to proceed.

Note

To use an Access Point to connect to the Internet, you must change the Access Point default settings.



For additional information on the wireless network capabilities of the Windows XP operating system, refer to Windows XP "Help and Support". (Click "Start", and click "Help and Support", enter "wireless" into the Search field, and click the green arrow icon.) You may also wish to consult the Windows XP operating system documentation.

Removing the Wireless LAN PC Card and Precautions When Inserting it

This section explains how to remove the Wireless LAN PC Card and outlines precautions when inserting the card in a computer with two card slots arranged one above the other.



You do not need to turn off your computer when you insert or remove the Wireless LAN PC Card.

To remove the Wireless LAN PC Card

- 1 Quit any software accessing the wireless LAN (e.g. Internet Explorer).
- 2 Click 送 on your Windows operating system taskbar.
- **3** Click "Safely remove Sony 802.11g Wireless LAN Adapter" or "Stop Sony 802.11g Wireless LAN Adapter" on the shortcut menu that appears.

If your computer has two PC Card slots

Notes

- When using a computer which has two PC Card slots arranged vertically (one above the
 other), insert the Wireless LAN PC Card into the top slot. If inserted into the bottom
 slot, the antenna of the Wireless LAN PC Card will block the top slot.
- If you insert the Wireless LAN PC Card into a slot other than the one you usually use, the computer treats the card as a new device and automatically begins installing device drivers for it. Completing the driver installation makes it possible to use the Wireless LAN PC Card in that slot. Installation is performed automatically by the installation wizard. (For instructions on how to uninstall the Wireless LAN PC Card driver, see page 50.)



If you are using the Windows Me or Windows 2000 operating system, you can register up to 32 networks for each PC card slot. However, you have to register each network individually. You cannot share the settings across slots.

Checking the communication status

Checking the wireless signal strength

The communication status is shown by the signal level indicator on your Windows operating system taskbar.



Signal level indicator

Meaning of indicator appearance

	Excellent
តា	Good
ล	Poor
\triangle	Out of range
	Card not inserted (Wireless LAN PC Card is not inserted or not recognized correctly)
	Peer to Peer (Communicating in Peer to Peer Network connection mode)

Checking network information

To obtain information about the network to which you are connected, proceed as follows.

Double-click the signal level indicator on your Windows operating system taskbar.

The Wireless Panel main screen appears, and information about the network connection is shown. For details, refer to the Wireless Panel Help.

Using the Wireless Panel

The Wireless Panel is a software application that shows information about the communication status of the computer connected to the wireless network. Normally, the Wireless Panel runs in the background and only shows the radio signal condition by means of the signal level indicator on your Windows operating system taskbar. The main screen of the Wireless Panel contains more detailed information. When running under operating systems other than Windows XP, communication setup and network switching are also performed using the Wireless Panel.

Notes

- To use the Wireless Panel under the Windows 2000 operating system to modify communication settings, log on with a user account listed in "Administrators". You cannot modify settings when logged on with any other account.
- On a computer running the Windows XP operating system, communication setup and network switching are not performed with the Wireless Panel but with built-in functions of the Windows XP operating system. However, the Wireless Panel can be used to check the communication status.

Opening the Wireless Panel

To open the Wireless Panel, proceed as follows.

Double-click the signal level indicator on your Windows operating system taskbar.

The Wireless Panel appears.

🖑 Wireless Panel 🔹 🤶							
9	Status Network List Setting						
	State	Network Name (SSID)	Signal Level	Channel			
	a 🗐 802.11g	ac37df	43	2.412 GHz (1 ch)			
	(D) 802.11b	ac38df	60	2.437 GHz (6 ch)			
	🗐 802.11g	SONY.IDT-LF2.0800461F4E84	23	2.462 GHz (11 ch)			
	802.116	0939ea	30	2.412 GHz (1 ch)			
	,		Open Ne	twork Connections	n		

ີ່ 🛱 Hints

- For information on the signal level indicator, see "Checking the wireless signal strength" on page 29.
- When you move the mouse pointer over an item in the Wireless Panel screen, a short description of that item appears.
- For details about how to use Wireless Panel, refer to the Wireless Panel Help. For details about how to access Help, see page 10.

Manually installing, verifying, and removing the supplied software

Installing the Wireless LAN PC Card driver manually

Notes

- To install the supplied software on a computer running the Windows 2000 operating system, log on with a user account listed in "Administrators". To install the supplied software on a computer running the Windows XP operating system, log on with a user account with administrator access privileges. You cannot install the software or modify settings when logged on with any other account.
- Exit all other Windows operating system programs.
- 1 Insert the supplied CD-ROM into the CD-ROM drive of your computer.
- 2 In the Easy Installation Wizard dialog box, click "Exit".
- **3** If your computer has only one PC card slot and it is currently used, copy the "Driver" folder from the supplied CD-ROM to the hard disk of your computer before inserting the Wireless LAN PC Card.

The following explanation assumes that a folder called "temp" was created on drive C and that the data was copied to this folder.

- 4 Insert the Wireless LAN PC Card into the PC Card slot of the computer.
- **5** Install the Wireless LAN PC Card driver.

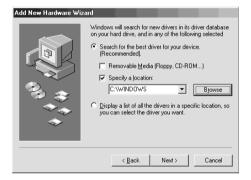
The actual procedure differs slightly, depending on whether you are using the Windows Me, Windows 2000, or Windows XP operating system. See the section specific to your operating system.

Windows Me operating system:

1 Select "Specify the location of the driver" and click "Next".



2 Select the "Specify a location" check box.



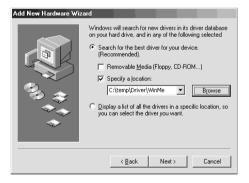
3 Click "Browse" and specify the location of the driver in the dialog box that appears.

ີ່ 🐺 Hint

If the "Driver" folder from the CD-ROM has been copied to the "temp" folder on drive C, enter "C:\temp\Driver\WinMe".

Browse for Folder		
Select the folder that contains driver information (.INF file) for this device.		
⊡ 🗹 Desktop 🔺		
😟 💮 My Documents		
🚊 🖳 My Computer		
🔃 🚽 3½ Floppy (A:)		
temp		
Driver		
WinMe		
🕀 🎡 Compact Disc (E:)		
😟 📻 Removable Disk (F:)		
🗄 🞰 Control Panel		
🕀 📴 My Network Places		
🔄 🖾 Becucle Bin		
OK Cancel		

- 4 Click "OK".
- 5 Click "Next".



6 Click "Next".



The driver is installed.

7 Click "Finish".



Restart the computer.

Windows 2000 operating system:

1 Click "Next".



2 Select "Search for a suitable driver for my device" and click "Next".

Found New Hardware Wizard
Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system.
This wizard will complete the installation for this device:
2 Ethernet Controller
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
C Display a list of the known drivers for this device so that I can choose a specific driver
< <u>B</u> ack <u>N</u> ext > Cancel

3 Select the "Specify a location" check box and click "Next".



4 Click "Browse" and specify the location of the driver in the dialog box.

ີ່ 🖞 Hint

If the "Driver" folder from the CD-ROM has been copied to the "temp" folder on drive C, enter "C:\temp\Driver\WinXP2K".



5 Click "OK".

6 Click "Next".



The driver is installed.

7 Click "Finish".



Windows XP operating system:

1 Select "Install from a list or specific location" and click "Next".



2 Select the "Include this location in the search" check box and click "Browse".

Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
A:\ Bjowse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

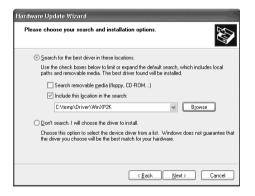
3 In the dialog box that appears, select the folder that contains the driver and click "OK".

ີ່ 🖞 Hint

If the "Driver" folder from the CD-ROM has been copied to the "temp" folder on drive C, select "C:temp\Driver\WinXP2K".

Browse For Folder	?×
Select the folder that contains drivers for your	hardware.
🗉 🖨 My Documents	~
🖃 😼 My Computer	100
🗉 🧼 Local Disk (C:)	
🖃 🧰 temp	
🖃 🧰 Driver	
🗀 WinMe	
🗁 WinXP2K	
🗉 🎱 CD Drive (D:)	
🗈 👻 My Network Places	
🗉 📾 Shared Documents	*
, ?	
To view any subfolders, click a plus sign above.	
ОК	Cancel

- 4 Click "OK".
- 5 Click "Next".





Installing the Wireless Panel manually

Note

When using the Windows 2000 operating system, log on with a user account listed in "Administrators". When using the Windows XP operating system, log on with a user account with administrator access privileges.

Before installation

- Install the Access Point and connect it to a power outlet when using the Access Point Network connection mode.
- Complete installation of the Wireless LAN PC Card driver. (See page 31)
- Exit all other Windows operating system programs.
- 1 Insert the supplied CD-ROM into the CD-ROM drive of your computer.
- 2 In the Easy Installation Wizard dialog box, click "Exit".
- **3** If your computer has only one PC card slot and it is currently used, copy the "WPanel" folder from the supplied CD-ROM to the hard disk of your computer before inserting the Wireless LAN PC Card.

The following explanation assumes that a folder called "temp" was created on drive C and that the data was copied to this folder.

4 Go to the "WPanel" folder copied from the CD-ROM and double-click "Setup.exe".

Depending on your computer's settings, the file name "Setup.exe" may be displayed as "Setup". If there are multiple files named "Setup" in the same folder, double-click the one with the following icon.



- 5 Click "Next".
- **6** The "License Agreement" dialog box appears. Click "Yes" to accept.

The "Choose Destination Location" dialog box appears.

7 Click "Next".

The Wireless Panel software is installed.

8 Click "Finish".

Once Wireless Panel is installed, appears on your Windows operating system taskbar.

If you installed Wireless Panel manually, see the following for details about how to connect to the Access Point.

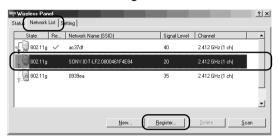
- With the Windows Me and Windows 2000 operating systems, see "Connecting to the Access Point with Wireless Panel (Windows Me/2000 operating system)" on page 41.
- With the Windows XP operating system, see "Making Access Point Connection Settings" on page 20.

Connecting to the Access Point with Wireless Panel (Windows Me/2000 operating system)

1 Double-click 🖬 on your Windows operating system taskbar.

The Wireless Panel screen appears.

2 Click the "Network List" tab, select a wireless network from the list, and click "Register".



The "Registering Network" dialog box appears.

3 If data encryption (WEP) is enabled for the Access Point, select the "WEP" check box, enter the encryption key in the "Key" box, and then confirm it by entering it again in the "Confirm key" box.

Registering Network					? ×
Network Name (<u>S</u> SID) SONY.IDT-LF2.0800461F4E84					•
I WEP Key	In ASCII	character,	0 characte	rs(40 bits	encryption)
Confirm key					
Advanced[Y]	Connect		Save <u>(G</u>)		Cancel

4 Click "Connect".

The Wireless LAN PC Card connects to the Access Point.

Verifying Wireless LAN PC Card driver installation

To verify that the Wireless LAN PC Card driver has been installed properly, perform the following steps.

Windows Me operating system:

- 1 Click "Start", point to "Settings", and click "Control Panel". Control Panel appears.
- 2 Double-click the "System" icon. ♀ Hint

If the "System" icon is not shown, select "View all Control Panel options".

- **3** Click the "Device Manager" tab.
- 4 Click "View devices by type".
- 5 Double-click "Network adapters".

6 Double-click "Sony 802.11g Wireless LAN Adapter".

The "Sony 802.11g Wireless LAN Adapter Properties" dialog box appears.

Sony 802.11g Wireless LAN Adapter Properties
General Driver Resources Power Management
Sony 802.11g Wireless LAN Adapter
Device type: Network adapters
Manufacturer: Sony Corporation
Hardware version: 001
Device status
This device is working properly.
Device usage
Disable in this hardware profile
Exists in all hardware profiles
OK Cancel

Note

The Wireless LAN PC Card is not working properly in the following cases:

- "Sony 802.11g Wireless LAN Adapter" is shown with an "X" or "!" symbol.
 - → Click "Sony 802.11g Wireless LAN Adapter" and click "Remove" to uninstall the driver. Then repeat the installation process.
- Double-clicking "Network Adapters" does not display "Sony 802.11g Wireless LAN Adapter".
 - → Remove the Wireless LAN PC Card. Then repeat the installation process.
- Double-clicking "Other devices" displays "Ethernet Controller".
 - → Click "Ethernet Controller", then click "Remove" to uninstall the driver. Repeat the installation process.
- 7 Confirm that the message "This device is working properly." is displayed under "Device status".

Note

If "This device is working properly." is not shown, the Wireless LAN PC Card is not working correctly. Perform steps 1 - 5, click "Sony 802.11g Wireless LAN Adapter", then click "Remove" to uninstall the driver. After uninstalling, restart the computer and repeat the installation process.

8 Click "OK" to close the "Sony 802.11g Wireless LAN Adapter Properties" dialog box.

The "System Properties" dialog box appears.

9 Click "OK" to close the "System Properties" dialog box. Control Panel appears.

10 Click 🗙 to close Control Panel.

If the computer you are using incorporates another Ethernet interface besides the Wireless LAN PC Card, disable the other interface as follows.

- 1 Click "Start", point to "Settings", and click "Control Panel". Control Panel appears.
- Double-click the "System" icon.
 ic Hint
 If the "System" icon is not shown calcot "View all Control Band anticas"

If the "System" icon is not shown, select "View all Control Panel options".

- **3** Click the "Device Manager" tab and double-click "Network adapters".
- **4** Double-click the network adapter to disable.
- **5** Click the "General" tab, then select the "Disable in this hardware profile" check box.
- 6 Click "OK" to close the Properties dialog box for the network adapter to disable.

The "System Properties" dialog box appears.

- 7 Click "OK" to close the "System Properties" dialog box. Control Panel appears.
- 8 Click x to close Control Panel.

Windows 2000 operating system:

- 1 Click "Start", point to "Settings", and click "Control Panel". Control Panel appears.
- **2** Double-click the "System" icon. The "System Properties" dialog box appears.
- **3** Click the "Hardware" tab, then click "Device Manager". The "Device Manager" window appears.
- 4 In the "View" menu, click "Devices by type".
- 5 Double-click "Network adapters".
- 6 Double-click "Sony 802.11g Wireless LAN Adapter". The "Sony 802.11g Wireless LAN Adapter Properties" dialog box appears.

Sony 802.	11g Wireless LAI	N Adapter Properties	? ×
General	Advanced Driver	Resources	
	Sony 802.11g Wire	eless LAN Adapter	
	Device type:	Network adapters	
	Manufacturer:	Sony Corporation	
	Location:	CardBus Slot 1 (PCI bus 21, device 0, fu	nctior
This o	e status device is working pro are having problem he troubleshooter.	operty. s with this device, click Troubleshooter to	×
		Iroubleshooter	
Device	usage:		
Use thi	s device (enable)		•
		OK Ca	ncel

Note

The Wireless LAN PC Card is not working properly in the following cases:

- "Sony 802.11g Wireless LAN Adapter" is shown with an "X" or "!" symbol.
 - → Right-click "Sony 802.11g Wireless LAN Adapter" and click "Remove" to uninstall the driver. Then repeat the installation process.
- Double-clicking "Network Adapters" does not display "Sony 802.11g Wireless LAN Adapter".
 - → Remove the Wireless LAN PC Card. Then repeat the installation process.
- Double-clicking "Other devices" displays "Ethernet Controller".
 - → Right-click "Ethernet Controller", then click "Remove" to uninstall the driver. Repeat the installation process.
- 7 Confirm that the message "This device is working properly." is displayed under "Device status".

Note

If "This device is working properly." is not shown, the Wireless LAN PC Card is not working correctly. Perform steps 1 - 5, right-click "Sony 802.11g Wireless LAN Adapter", then click "Remove" to uninstall the driver. After uninstalling, restart the computer and repeat the installation process.

8 Click "OK" to close the "Sony 802.11g Wireless LAN Adapter Properties" dialog box.

The "Device Manager" window appears.

9 Click x to close the "Device Manager" window.

The "System Properties" dialog box appears.

- **10** Click "OK" to close the "System Properties" dialog box. Control Panel appears.
- 11 Click X to close Control Panel.

If the computer you are using incorporates another Ethernet interface besides the Wireless LAN PC Card, disable the other interface as follows.

1 Click "Start", point to "Settings", and click "Network and Dialup Connections".

The "Network and Dial-up Connections" window appears.

- **2** Select the network adapter to disable.
- **3** On the "File" menu, click "Disable".
- 4 Click to close the "Network and Dial-up Connections" window.

Windows XP operating system:

- 1 Click "Start" and click "Control Panel". Control Panel appears.
- Double-click the "System" icon.
 The "System Properties" dialog box appears.
 iv Hint
 If the "System" icon is not displayed, click "Switch to Classic View".
- **3** Click the "Hardware" tab, then click "Device Manager". The "Device Manager" window appears.
- **4** On the "View" menu, click "Devices by type".
- 5 Double-click "Network adapters".

6 Double-click "Sony 802.11g Wireless LAN Adapter".

The "Sony 802.11g Wireless LAN Adapter Properties" dialog box appears.

Sony 803	2.11g Wireless I	AN Adapter Properties	?×
General	Advanced Driver	Resources	
	Sony 802.11g Wir	eless LAN Adapter	
	Device type:	Network adapters	
	Manufacturer:	Sony Corporation	
	Location:	PCI bus 129, device 0, function 0	
Devic	e status		
This	device is working pr	operly.	~
	u are having problem the troubleshooter.	is with this device, click Troubleshoot to	
			4
		Iroubleshoot	
Device	usage:		
Use th	is device (enable)		*
		ОКС	ancel

Note

The Wireless LAN PC Card is not working properly in the following cases:

- "Sony 802.11g Wireless LAN Adapter" is shown with an "X" or "!" symbol.
 - → Right-click "Sony 802.11g Wireless LAN Adapter" and click "Remove" to uninstall the driver. Then repeat the installation process.
- Double-clicking "Network Adapters" does not display "Sony 802.11g Wireless LAN Adapter".
 - → Remove the Wireless LAN PC Card. Then repeat the installation process.
- Double-clicking "Other devices" displays "Ethernet Controller".
 - → Right-click "Ethernet Controller", then click "Remove" to uninstall the driver. Repeat the installation process.
- 7 Confirm that the message "This device is working properly." is displayed under "Device status".

Note

If "This device is working properly." is not shown, the Wireless LAN PC Card is not working correctly. Perform steps 1 - 5, right-click "Sony 802.11g Wireless LAN Adapter", then click "Remove" to uninstall the driver. After uninstalling, restart the computer and repeat the installation process.

8 Click "OK" to close the "Sony 802.11g Wireless LAN Adapter Properties" dialog box.

The "Device Manager" window appears.

9 Click \boxtimes to close the "Device Manager" window.

The "System Properties" dialog box appears.

10 Click "OK" to close the "System Properties" dialog box.

Control Panel appears.

11 Click 🔀 to close Control Panel.

If the computer you are using incorporates another Ethernet interface besides the Wireless LAN PC Card, disable the other interface as follows.

1 On the "Start" menu, click "Control Panel", and double-click "Network Connections".

The "Network Connections" window appears.

Note

If "Network Connections" is not displayed, click "Switch to Classic View" on the left of Control Panel.

- **2** From "LAN or high-speed Internet", select the network adapter to disable.
- **3** On the "File" menu, click "Disable".
- 4 Click \times to close the "Network Connections" window.

Uninstalling the Wireless LAN PC Card driver

To uninstall the Wireless LAN PC Card driver, proceed as follows.

ີ່ 🥰 Hint

For information on how to install the Wireless LAN PC Card driver, see page 31.

Windows Me operating system:

- 1 Click "Start", point to "Settings", and click "Control Panel". Control Panel appears.
- **3** Click the "Device Manager" tab.
- 4 Click "View devices by type".
- 5 Double-click "Network adapters".
- 6 Click "Sony 802.11g Wireless LAN Adapter", then click "Remove".

The "Confirm Device Removal" dialog box appears.

7 Click "OK" to uninstall.

The message "To finish removing your hardware, you must restart your computer. Do you want to restart your computer now?" appears.

8 Remove the Wireless LAN PC Card from its slot, then click "Yes".

The computer restarts. This completes uninstallation of the driver.

Windows 2000 operating system:

Notes

- With the Windows 2000 operating system, only users with administrator access privileges can uninstall drivers. Log on to the Windows 2000 operating system with a user account listed in "Administrators".
- Exit all programs before running the uninstall process.
- 1 Click "Start", point to "Settings", and click "Control Panel". Control Panel appears.
- **2** Double-click the "System" icon. The "System Properties" dialog box appears.
- **3** Click the "Hardware" tab, then click "Device Manager". The "Device Manager" window appears.
- **4** On the "View" menu, click "Devices by type".
- **5** Double-click "Network adapters", and double-click "Sony 802.11g Wireless LAN Adapter".

The "Sony 802.11g Wireless LAN Adapter Properties" dialog box appears.

6 Click the "Driver" tab, then click "Uninstall".

The "Confirm Device Removal" dialog box appears.

7 Click "OK".

The Device Manager window appears.

8 Click x to close the "Device Manager" window.

The "System Properties" dialog box appears.

9 Click "OK" to close the "System Properties" dialog box. Control Panel appears.

10 Click X to close Control Panel.

Windows XP operating system:

Notes

- With the Windows XP operating system, only users with administrator access privileges can uninstall drivers. Log on to the Windows XP operating system with a user account with administrator access privileges.
- Exit all programs before running the uninstall process.
- 1 Click "Start" and click "Control Panel".

Control Panel appears.

2 Double-click the "System" icon.

The "System Properties" dialog box appears.

ີ່ 🛱 Hint

If the "System" icon is not displayed, click "Switch to Classic View".

3 Click the "Hardware" tab, then click "Device Manager".

The "Device Manager" window appears.

- 4 On the "View" menu, click "Devices by type".
- **5** Double-click "Network adapters", and Double-click "Sony 802.11g Wireless LAN Adapter".

The "Sony 802.11g Wireless LAN Adapter Properties" dialog box appears.

6 Click the "Driver" tab, then click "Uninstall".

The "Confirm Device Removal" dialog box appears.

7 Click "OK".

The Device Manager window appears.

8 Click 🔀 to close the Device Manager window.

The "System Properties" dialog box appears.

9 Click "OK" to close the "System Properties" dialog box. Control Panel appears.

10 Click 🔀 to close Control Panel.

Uninstalling the Wireless Panel

To uninstall the Wireless Panel, proceed as follows.

Note

Exit the Wireless Panel with the icon on your Windows operating system taskbar before proceeding.

ີ່ 🐺 Hint

For information on how to install the Wireless Panel, see page 39.

Windows Me operating system:

Note

Exit all programs before running the uninstall process.

- 1 Click "Start", point to "Settings", and click "Control Panel". Control Panel appears.
- 2 Double-click the "Add/Remove Programs" icon. The "Add/Remove Programs Properties" dialog box appears.
- **3** Select "Wireless Panel" and click "Add/Remove". The "Confirm File Deletion" dialog box appears.
- 4 Click "OK".

The software uninstall process is carried out.

5 Click "Finish".

The uninstall process is complete.

Windows 2000 operating system:

Notes

- With the Windows 2000 operating system, only users with administrator access privileges can uninstall software. Log on to the Windows 2000 operating system with a user account listed in "Administrators".
- Exit all programs before running the uninstall process.
- 1 Click "Start", point to "Settings", and click "Control Panel". Control Panel appears.
- **2** Double-click the "Add/Remove Programs" icon. The "Add/Remove Programs" dialog box appears.
- **3** Select "Wireless Panel" and click "Change/Remove". The "Confirm File Deletion" dialog box appears.
- **4** Click "OK".

The software uninstall process is carried out, and then the InstallShield completion dialog box appears.

5 Click "Finish".

The uninstall process is complete.

Windows XP operating system:

Notes

- With the Windows XP operating system, only users with administrator access privileges can uninstall software. Log on to the Windows XP operating system with a user account with administrator access privileges.
- Exit all programs before running the uninstall process.
- 1 Click "Start" and click "Control Panel".

Control Panel appears.

2 Double-click the "Add or Remove Programs" icon.

The "Add or Remove Programs" window appears.

ີ່ 🖞 Hint

If the "Add or Remove Programs" icon is not displayed, click "Switch to Classic View".

3 Select "Wireless Panel" and click "Change/Remove".

The "Confirm File Deletion" dialog box appears.

4 Click "OK".

The software uninstall process is carried out, and then the maintenance completion dialog box appears.

5 Click "Finish".

The uninstall process is complete.

Precautions

Safety

Do not drop or cause a mechanical shock to the Wireless LAN PC Card, as this may damage the unit.

Installation

Do not expose the Wireless LAN PC Card to the following conditions:

- Unstable surfaces
- High humidity or poor ventilation
- Excessive dust
- Direct sunlight or extreme heat
- Closed cars
- Magnetized location (near magnets, speakers, or televisions)
- · Locations exposed to frequent vibration
- Locations where the transmission of radio waves may be obstructed by metal plates or concrete walls

Operation

If the Wireless LAN PC Card is moved directly from a cold location to a warm locations, or if it is placed in a very damp environment, moisture may condense on the parts inside. The Wireless LAN PC Card may not operate properly if moisture condensation occurs.

Cleaning

Clean the casing with a soft cloth, lightly moistened with water or a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzene as it may damage the finish of the casing.

Specifications

Protocol support

TCP/IP compliant

Standard compliance

IEEE 802.11b IEEE 802.11g

Radio frequency

2.4 GHz wireless network:2.4 to 2.4835 GHz (ISM band)

Modulation

DS-SS OFDM

General

Power requirements 3.3 V DC (supplied from the computer through the PC card adapter)

Current

Peak current at transmission: 700 mA Peak current at reception: 370 mA

Connector

PC Card Card Type II (Card Bus) Dimensions Approx. $2.2 \times 0.2 \times 3.6$ inches (Approx. $54 \times 5 \times 91$ mm) (W × H × D) (Antenna height: 0.55 inches (Approx. 14 mm)) Mass Approx. 1.4 oz. (Approx. 40 g) Operating temperature 41° F to 95° F (5° C to 35° C) (not condensed) Environment temperature

-4°F to 140°F (-20°C to 60°C) (not condensed)

Supplied accessories

See "Unpacking" on page 12.

Design and specifications are subject to change without notice.

Getting help

This section describes how to get help and support from Sony, as well as troubleshooting tips for your Wireless LAN PC Card.

About Sony's Support Options

Sony provides several support options for your Wireless LAN PC Card.

Operating Instructions explains how to use your Wireless LAN PC Card.

□ Quick Start Guide explains how to install software required to use the Wireless LAN PC Card (IEEE 802.11g: 2.4 GHz/54 Mbps) PCWA-C300S. The document also contains answers to frequently asked questions and common problems.

□ Wireless Panel Online Help is the Online Help of the supplied Wireless Panel utility software. Refer to it for instructions on how to use the software.

□ The Sony Wireless LAN products support Web site http://www.sony.com/ wirelesslansupport provides the latest information on your Wireless LAN products.

□ The Sony e-mail support service

answers your questions by electronic mail. Just send your question in an e-mail message and a customer service representative will reply. To send a question to Sony e-mail support, fill out the e-mail form at

http://www.ita.sel.sony.com/ support/pc/email.html □ The Sony fax-back service provides you with answers to commonly asked questions. You can use this automated service to request a list of available topics then select the topics you want to receive. To contact the Sony fax-back service, call **1-877-760-7669**.

 The Sony Customer Information Services Center offers information about your Wireless LAN products and other Sony products that work with your computer. To contact the Sony Customer Information Services Center, call 1-877-760-7669.
 Open 24 hours/day, 7 days/week.

Glossary

Access Point (Infrastructure) Network mode

A method of building a wireless network using one or more Access Points. For details, see "Capabilities" on page 5.

Channel

A part of the frequency spectrum to be used for wireless communication.

Only client computers and Access Points set to the same channel can communicate with each other.

Client

A computer connected to a LAN (Local Area Network). Also may be called a client computer.

DHCP (Dynamic Host Configuration Protocol)

DHCP lets network administrators centrally manage and automate assignment of client computer IP addresses.

DNS (Domain Name System)

A system that translates host names into IP addresses.

Networks that use the TCP/IP protocol, such as the Internet, use a set of numbers like 192.168.0.1 (IP address) to identify a computer. However, since the IP address is hard to memorize, DNS was developed to allow a name like "www.sony.com" to identify a computer for convenience. DNS servers manage these translations from host names into IP addresses.

LAN (Local Area Network)

A network which is accessible only to its members, unlike the Internet which is open to an unlimited number of people. A LAN may be built for different purposes. For example, you can build an office LAN that is accessible only to members of the same department or a home LAN that is accessible only to family members.

Network Name (SSID)

A wireless LAN group identifier according to the IEEE 802.11 standard. SSID stands for "Service Set ID". The Network Name can be set individually for each Access Point and Peer to Peer Network to connect to. When roaming among multiple Access Points is used, all Access Points must be configured for the same Network Name (SSID) and WEP encryption key.

TCP/IP (Transmission Control Protocol/Internet Protocol)

TCP/IP is the network communications protocol that is used to communicate over the Internet. TCP is a connection-oriented protocol for establishing reliable, sequenced data transfer. TCP ensures that data reaches its destination.

IP assembles and addresses data packets for transmission to their network destinations.

WAN (Wide Area Network)

A network that interconnects remote LANs through the Internet or telephone lines.

Troubleshooting

Read the Troubleshooting section of this guide before calling Sony Customer Information Services. If you still cannot resolve your issue after reading this section, call Sony Customer Information Services.

Symptom	Cause/Remedy	
My computer does not detect the Wireless LAN PC Card.	The Wireless LAN PC Card may not be properly inserted into the PC card slot of your computer.	
	→ Check that the Wireless LAN PC Card is inserted in the proper direction, then push it in as far as it will go.	
I cannot see other computers.	You did not enter a password when your Windows operating system started.	
	→ Make sure that you enter a user name and appropriate password when you log on to your Windows operating system.	
	Windows settings are incorrect.	
	→ Check your Windows operating system network settings.	
	If there are no other computers on the network to which you are connected, no other computer is displayed.	
I cannot access the Internet.	The Access Point is not connected.	
	→ Follow the instructions in the Access Point Operating Instructions to connect it properly.	
	The Wireless LAN PC Card may not be inserted into your computer.	
	→ See the instructions on page 17 of this manual to insert it properly.	
	Communication between the Access Point and your computer are not established.	
	→ Check the communication status using the Wireless Panel. For details on how to check the status, see "Checking the communication status" (page 29).	
	The Access Point is not properly configured.	
	→ Configure the Access Point with the connection method of your choice.	
	Distance between computer and Access Point is too great. The maximum allowable distance is about 150 feet in line of sight, but this will vary depending on usage conditions.	
	→ Check the signal level indicator on your Windows operating system taskbar. If the level is low, bring the computer and Access Point closer together.	

Symptom	Cause/Remedy
Data transfer speed is	There is interference with other Access Points.
slow	→ Try changing the Access Point channel setting.
	The network is handling a large amount of simultaneous traffic.
	\rightarrow Try again when the network load is lower.
	Communication distance is long.
	→ Reduce the communication distance.
	There are obstacles (objects blocking radio transmission) within the communication range.
	\rightarrow Remove the obstacles or change the installation location.
I cannot remember the WEP Key.	→ When using an Access Point, reset the Access Point to its defaults. For further information about how to reset the Access Point, see the Access Point Operating Instructions.
	→ When using a Wireless LAN PC Card in Peer to Peer Network connection mode, delete the network settings registered on each computer connected to the network, then reconfigure the computer's wireless network settings.

- □ The Sony Wireless LAN products support Web site http://www.sony.com/wirelesslansupport provides the latest information on your Wireless LAN products.
- □ The Sony e-mail support service answers your questions by electronic mail. Just send your question in an e-mail message and a customer service representative will reply. To send a question to Sony e-mail support, fill out the e-mail form at http://www.ita.sel.sony.com/support/pc/email.html
- □ The Sony fax-back service provides you with answers to commonly asked questions. You can use this automated service to request a list of available topics and then select the topics you want to receive. To contact the Sony fax-back service, call 1-877-760-7669.
- The Sony Customer Information Services Center offers information about your Wireless LAN products and other Sony products that work with your computer. To contact the Sony Customer Information Services Center, call 1-877-760-7669.

Open 24 hours/day, 7 days/week.

http://www.sony.net/



Printed on 100% recycled paper using VOC (Volatile Organic Compound)-free vegetable oil based ink.

Printed in Japan